

AVIATION PROJECT CASE STUDY

Pisa Airport (PSA)



PSA is just a 10 minute drive, or a short train ride, to the historic city of Pisa. A gateway to the popular holiday region of Tuscany too, it serves 20 airlines. The most important in terms of numbers being low-cost carriers such as Jet2, easyJet, and Ryanair. Other airlines flying to and from PSA include Alitalia, British Airways, Delta, KLM, and Qatar.

The airport is also home to the Italian 46th Air Brigade.

PSA is officially named Pisa Galileo Galilei International – after the famous astronomer, physicist, and engineer.

The challenge:

PSA asked us to upgrade its current High-Pressure Sodium (HPS) lighting to an LED system to improve lighting over the whole airport and deliver significant energy savings.

This was going to be a huge project involving 22 masts over the airport. Two of these masts were going to be new builds, so their planning and construction needed to be taken into account.

At a glance

Sector: Aviation

Customer: PSA

Number of passengers: 5,387,558

Runways: 2

Average aircraft movements: 42,815

LED floodlights installed: 4 x Titan 320,
8 x Titan 420, 66 x Titan 720

Type: Titan Series



Before we could start on the whole project, one mast needed to be replaced straight away. This would lose the airport a lot of evening capacity, at its busiest time of year. To solve this, we temporarily installed two of our Mobile Tower Series masts. See our Pisa Mobile Case Study to find out more.

Several months later we were able to move on to deliver the airport's total lighting upgrade.

Our solution

The heights of the masts to be upgraded, and the new ones constructed, ranged from 8m to 30m. Their distances from PSA's stands varied too. So, we used a mix of our Titan Series to deliver the Lux and Uniformity levels needed.

Our flagship line, the Titan Series was the perfect choice to replace PSA's inefficient, energy-consuming HPS lighting.

Designed by our expert engineers, it delivers the high performance and reliability needed in mission-critical applications. Just two of the reasons it's the go-to product for many of our aviation clients worldwide.

Thanks to our proprietary optic lenses, it allows airports to achieve the lighting levels they need – with less power and lower glare. So, all ICAO requirements can be easily met.

Lux average values: 20+ Lux
Uniformity: >0.25



The Titan Series is also ideal for retrofit and new build projects – meaning it could be easily applied to both PSA's current and new masts.

The Titan luminaires used were:

- 4 X Titan 320
- 8 X Titan 420
- 66 X Titan 720

	BEFORE	AFTER WITH LED
Number of projectors	144	78
Nominal power for single appliance	800/1000/2000	326/455/705
Total power absorbed	144kW	51.4kW
Energy consumption per year	61900kWh	221338kWh
Colour temperature	2000k	5000k
Colour rendering index	25	70
Average light level	20	20+
Uniformity	0.25	0.3
Energy savings		64%